

REMARKS

In the Office Action¹, the Examiner took the following actions:

objected to the drawings;

rejected claims 232, 234-247, 255, 256, 258-263, 267, and 268 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent Application Publication No. 2002/0088379 to Phillips et al. ("*Phillips*") in view of U.S. Patent No. 7,026,375 to Stevens ("*Stevens*");

rejected claims 233 and 266 under 35 U.S.C. 103(a) as being unpatentable over *Phillips* in view of *Stevens* and further in view of U.S. Patent No. 6,083,434 to Strebel ("*Strebel*");

rejected claims 248-254 under 35 U.S.C. 103(a) as being unpatentable over *Phillips* in view of *Stevens* and further in view of U.S. Patent No. 5,666,886 to Alexander et al. ("*Alexander*");

rejected claim 257 under 35 U.S.C. 103(a) as being unpatentable over *Phillips* in view of *Stevens* and further in view of U.S. Patent Application Publication No. 2002/0119215 to Ettlinger ("*Ettlinger*");

rejected claims 264, 265, and 269 under 35 U.S.C. 103(a) as being unpatentable over *Phillips* in view of *Stevens* and further in view of U.S. Patent Publication No. 2002/0030597 to Muirhead ("*Muirhead*"); and

rejected claim 270 under 35 U.S.C. 130(a) as being unpatentable over *Phillips* in view of *Stevens* and further in view of U.S. Patent No. 5,170,933 to Perry ("*Perry*").

Applicant respectfully traverses the objection to the drawings. Applicant has amended the drawings to address the Examiner's concerns. Accordingly, Applicant requests that the objection be withdrawn.

¹ The Office Action may contain statements reflecting characterizations of the related art and the claims. Regardless of whether any such statement is identified herein, Applicant decline to automatically subscribe to any statement or characterization in the Office Action.

Applicant respectfully traverses the rejections of the claims under 35 U.S.C.

§103(a). The rejections set forth in the outstanding Office Action assert that the "product-by-process limitation 'rotationally-moulded' in the preamble would not be expected to impart distinctive structural characteristics to the load carrying apparatus. Therefore, the claimed load carrying apparatus is not different and unobvious from the pallet of Phillips, as modified by Stevens." Office Action at p. 3. Applicant respectfully submits that the Office Action's assertions are incorrect. The cited art, alone or in combination, does not address the structural differences imparted by the claimed features of "rotationally-moulded," as recited in independent claim 232.

Notwithstanding the above assertion, Applicants have amended claim 232 to recite that "the pallet apparatus is of a unitary structure moulded in a single rotational moulding process." The cited art, alone or in combination fails to disclose or suggest at least this element of independent claims 232.

An apparatus that has been rotationally moulded has very different structural properties compared to an apparatus made by a thermoforming process such as the process suggested by *Phillips* or *Stevens*. With rotational moulding, the filled plastics material is added to a mould and rocked/rotated while being heated so that the plastics material melts and lines the inner surface of the mould. See, http://www.bpf.co.uk/Plastipedia/Processes/Rotational_Moulding.aspx; a printout of the website is enclosed for the Examiner's convenience. Rotational moulded articles therefore are essentially stress free, whereas those obtained by thermoforming processes have far greater stresses, especially around the mould seams. See, *id.*

Thus, the load carrying apparatus of the present invention will have a distinctive structural characteristic - it will be essentially stress free. *See, id.*

Phillips discloses two methods for forming a pallet. The first method includes spraying a conventional pallet within the elastomeric material on the surface of the pallet. ¶ [0010]. In *Phillips*, a conventional pallet means any pallet that is made with wood or compressed wood. ¶ [0011]. Alternatively, *Phillips* discloses constructing a pallet using polymeric boards or sheets created by a thermoforming process. ¶¶ [0022] and [0023]. The methods of adhering the boards for constructing the pallet disclosed by *Phillips* include nails, screws, adhesives, or combinations thereof. Accordingly, a *Phillips* pallet would clearly have a laminated structure that would be very different both in appearance and structural properties from a rotationally molded pallet.

Stevens teaches a process for making pellets (small tablets) of biodegradable polymer (PVA). *See* col. 2, lines 32-33. *Stevens* also teaches binding polymer and filler by residual moisture when the tablets are formed by cold pressing. *See* col. 3, lines 1-4. This allows the tablets to be transported more easily compared with powder formulations. *See* col. 2, lines 37-42. However, before the tablets are then extruded, they are dried to avoid problems that would be caused by this residual moisture vaporizing during extrusion. *See* col. 3, lines 1-7. Thus, *Stevens* teaches that the residual moisture is used to bind the polymer with the filler for transportation and that the moisture is removed before the polymer is subjected to the high temperatures associated with polymer moulding processes.

Stevens also mentions that a lubricant can be added to the composition. See col. 2, line 2. However, this lubricant is added by *Stevens* to make the composition extrudable - and not to bind the polymer and the filler together. See col. 3 lines 23-26.

Additionally, the Examiner fails to point to any section of *Stevens* that suggests that the PVA composition of *Stevens* would be suitable for making a load carrying apparatus that can carry a load of at least 50 Kgs, as recited in independent claim 232. In contrast, the types of product referred to by *Stevens* are all low strength products like sachets, diapers, drinking straws, etc. See col. 5, lines 12-24. Accordingly, the Examiner has fails to demonstrate that someone seeking to make the pallet of *Phillips* would consider the *Stevens* composition to be suitable.

For at least these reasons, combinations of *Phillips* and *Stevens* fail to disclose or suggest that “the pallet apparatus is of a unitary structure made in a single rotational moulding process,” as recited in claim 232, and there are significant structural differences between a *Phillips*’ pallet and the “rotationally-moulded load-carrying pallet apparatus” of independent claim 232. “The structure implied by the process steps should be considered when assessing the patentability of product-by-process claims over the prior art, especially . . . where the manufacturing process steps would be expected to impart distinctive structural characteristics to the final product.” MPEP §2113. The additional art cited in the outstanding Office Action, alone or in combination with *Phillips* and *Stevens*, fails to cure the deficiencies of *Phillips* and *Stevens*, and the Office Action does not rely upon the additional cited art to do so. For these reasons, the outstanding Office Action fails to address these significant structural differences. Accordingly, Applicant requests the rejection be withdrawn.

Claims 233-270 depend from claim 232 and distinguish over the cited art for least the same reasons as discussed above.

In view of the foregoing amendments and remarks, Applicant respectfully requests reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to Deposit Account 06-0916.

Respectfully submitted,

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Attachments:

Three (3) replacement drawing sheets, including Figs. 59-62; and
Printout of website
http://www.bpf.co.uk/Plastipedia/Processes/Rotational_Moulding.aspx.